REMARKS

Applicant has carefully studied the outstanding Official Action mailed on March 31, 2006. This response is intended to be fully responsive to all points of rejection raised by the Examiner and is believed to place the application in condition for allowance. Favorable reconsideration and allowance of the application are respectfully requested.

The drawing of Fig. 2 stands objected under 37 CFR §1.83(a) for failing to "clearly show the 3D image of muscle contraction as sensed by the claimed position sensing system."

The specification stands objected due to an informality. The sentence starting with "Gal, Aviram" has been deleted. (By the way, applicants and their representative are totally puzzled about this, because it does not appear in our computer version of the file nor does it appear in the PCT version!)

Claims 1-7 stand rejected under 35 USC §112, first paragraph (and second paragraph for basically the same reason) for failing "to describe or teach one of ordinary skill of the art how the claimed processor [is] operative to process data of the claimed EMG system and the claimed three-dimensional position and orientation information from the at least one position sensor [to] provide an output that comprises electromyographic activity data as a function of the three-dimensional position and orientation of said at least one position sensor. The disclosure fails to describe or teach one of ordinary skill of the art exactly what is meant by electromyographic activity data as 'a function of' three-dimensional position and orientation of the at least one position sensor."

Claim 6 stands rejected under 35 USC §112, second paragraph for indefiniteness because it appears to the Examiner that claim 6 was amended to depend from claim 15, a non-existent claim. However, Applicant has checked and indeed claim 6 was correctly amended to depend from claim 5, and it appears that the cross-out style of the word processor made the crossed-out "1" next to the new "5" look like "15". In any case, this has been made clearer in this version of the claims.

Applicant respectfully traverses the 112 rejections. It is respectfully submitted that the one of ordinary skill of the art would readily understand the phrase "electromyographic activity data *is a function of* the three-dimensional position and orientation of the at least one position sensor". The term "*is a function of*" is well known in the mathematics and science world. The skilled artisan would look to the dictionary definition. Quoting from the simple Internet definition from the URL:

http://www.google.com/search?hl=en&lr=&defl en&q=define:Function&sa=X&oi=glossary definition&ct=title

" Definitions of **Function** on the Web:

- In mathematics, a function is a relation, such that **each element of a set** (the domain) **is associated with a unique element of another** (possibly the same) **set** (the codomain, not to be confused with the range). The concept of a function is fundamental to virtually every branch of mathematics and every quantitative science "

Thus the skilled artisan would correctly understand that the above phrase from the claims means that each element of the first set (i.e., electromyographic activity data) is associated with a unique element of the second set (i.e., the 3D position and orientation of the position sensor). Thus, from the standard dictionary definition and using standard coordinates for the 3D position, the skilled artisan knows this means that one takes the electromyographic activity data and associates it with the x,y,z coordinates of the position sensor. How does one do that? It is respectfully submitted that the specification has indeed given enabling description to do just that. In order to enable taking the electromyographic activity data and associating it with the spatial coordinates of the position sensor, one needs to:

a. Describe how to get the electromyographic activity data

b. Describe how to get the spatial coordinates of the position sensor

c. Describe how the electromyographic activity data is associated with the spatial coordinates of the position sensor and how the information may be conveyed to the user.

How to get the electromyographic activity data is adequately described on page 3, which describes the CTG monitor and sensors (e.g., FHR and TOCO) and an example is given for a commercially available CTG monitor. So step a is enabled.

How to get the spatial coordinates of the position sensor is adequately described on page 3, which describes the position sensing system, and an example is given for a commercially available position sensing system. So step b is enabled.

How the electromyographic activity data is associated with the spatial coordinates of the position sensor and how the information may be conveyed to the user – attention is respectfully drawn to the last paragraph of page 4: "The position sensors 24 may be placed near the EMG sensors 30 and 36, such that position sensing system 22 may measure the three-dimensional position of EMG sensors 30 and 36. Processor 18 may then process the electrical muscular activity signals as a function of their three-dimensional positions and as a function of the CTG monitor 12 readings at the same time. The processed information may be displayed on monitor 20."

By placing the "position sensors 24 ... near the EMG sensors 30 and 36, such that position sensing system 22 may measure the three-dimensional position of EMG sensors 30 and 36", it is clear that this enables carrying out the claimed invention, namely, to obtain the electromyographic activity data as a function of the three-dimensional position and orientation of said at least one position sensor. The reason is that the position sensors 24 are connected to and processed by the processor (see end of second paragraph of page 4: "Either processor 18 or a dedicated processor in position sensing system 22 may control and coordinate operation of the receiving antenna (position sensor) 24 and transmitting antenna 26, and process the signals into position and orientation outputs.") The processor is also connected to and processes the EMG sensors (page 3, paragraph 5: "CTG monitor 12 may comprise an FHR sensor 14 and a TOCO sensor 16" and page 4, paragraph 1: "CTG monitor 12 may be in communication with a processor 18, such as but not limited to, by means of an RS232 connection").

Thus, it is respectfully submitted that step c is enabled and the claimed invention is enabled. The claimed invention is "said processor operative to process data of said EMG system and three-dimensional position and orientation information from said at least one position sensor to provide an output that comprises electromyographic activity data as a function of the three-dimensional position and orientation of said at least one position sensor". From the last paragraph of page 4, quoted above, "The position sensors 24 may be placed near the EMG sensors 30 and 36, such that position sensing system 22 may measure the three-dimensional position of EMG sensors 30 and 36. (*This enables getting the data of said EMG system and three-dimensional position and orientation information from said at least one position sensor*) Processor 18 may then process the electrical muscular activity signals as a function of their three-dimensional positions and as a function of the CTG monitor 12 readings at the same time (*This enables the processor operative to process data of said EMG system and three-dimensional position and orientation information from said at least one position sensor to provide an output that comprises electromyographic activity data as a function of the three-dimensional position and orientation of said at least one position sensor)* ." As mentioned above, the skilled artisan readily knows this means associating the electromyographic activity data with the spatial (for example, x,y,z) coordinates of the position sensor. The association has been described - the association is the very fact that the position sensor(s) was (were) placed near the EMG sensors, as in the last paragraph of page 4.

The only thing left is conveying the information to the user. This is described and enabled by displaying a 3D image of the muscle as sensed by the position sensors together with the EMG and CTG (FHR and TOCO) at the same time, which is precisely what is shown in Fig. 2. The image of the muscle is simply made of the x,y,z coordinates of the muscle as sensed by the position sensors. The display shows the TOCO, FHR and EMG associated at the same time with the coordinates of the muscle as sensed by the position sensors. All the claimed information is shown. Applicant earnestly believes the drawing should be understandable and the drawing objection should be overcome in light of the above explanation.

Accordingly, all of the 35 USC §112, first and second paragraph rejections are respectfully deemed overcome and claims 1-7 are deemed allowable.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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David Klein, Reg. No. 41,118 (Name of Applicant's Representative) — David Klein (Signature)